

WHAT IS CLAIMED IS:

1. A semiconductor device, comprising:
a semiconductor substrate; and
a polyimide film overlying the semiconductor substrate, wherein said polyimide film includes a polyimide material formed from an oxydiphthalic acid or acid anhydride thereof as a reactant.
2. The semiconductor device according to claim 1, wherein said polyimide material is formed by forming a polyimide precursor formed by reacting the oxydiphthalic acid or acid anhydride thereof with a diamine, and then heating the polyimide precursor.
3. The semiconductor device according to claim 2, wherein said diamine is a diaminopolysiloxane.
4. The semiconductor device according to claim 1, wherein the semiconductor substrate includes a large-scale integrated circuit.
5. The semiconductor device according to claim 1, wherein the polyimide film is a buffer coating film of the semiconductor device.
6. A semiconductor device, comprising:
a semiconductor substrate; and

a polyimide film overlying the semiconductor substrate, the polyimide film being produced by coating a composition containing a polyimide precursor overlying the semiconductor substrate, thereby forming a composition coating, forming a pattern in the composition coating using an i-line stepper, thereby forming a patterned coating, and heating the patterned coating to form polyimide from the polyimide precursor, wherein the polyimide precursor is formed from an oxydiphthalic acid or acid anhydride thereof as a reactant.

7. The semiconductor device according to claim 6, wherein the polyimide precursor is a polyamic acid.

8. The semiconductor device according to claim 7, wherein the polyamic acid is a reaction product of the oxydiphthalic acid or acid anhydride thereof and diamine compound.

9. The semiconductor device according to claim 8, wherein said diamine compound is a diaminopolysiloxane.

10. A photosensitive resin composition which comprises (1) a polyimide precursor, formed from an oxydiphthalic acid or acid anhydride thereof as a reactant, a 20 μ m film thickness of said polyimide precursor having a transmittance, at 365nm, of at least 40%; and (2) a polymerization initiator.

Sub
B2

11. The photosensitive resin composition according to claim 10, wherein the polyimide precursor is formed by reacting said oxydiphthalic acid or acid anhydride thereof with diamine.

12. The photosensitive resin composition according to claim 11, wherein said diamine is a diaminopolysiloxane.

13. The photosensitive resin composition according to claim 10, wherein said transmittance is in a range of 40%-68%.

14. The photosensitive resin composition according to claim 13, wherein the composition further includes an acryl compound having an amino group.

15. A polyimide precursor which is a reaction product of an oxydiphthalic acid or acid anhydride thereof and diaminopolysiloxane compound.

16. The polyimide precursor according to claim 15, wherein the oxydiphthalic acid or acid anhydride thereof and the diaminopolysiloxane compound are reacted in molar ratio of acid and acid anhydride, to diaminopolysiloxane of 0.8-1.2 to 1.0.

17. The polyimide precursor according to claim 15, the polyimide precursor being a polyamic acid.

cular

add 203

[illegible]